



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/889,179	07/12/2001	Juergen Schindler	449122008200	8063
25227	7590	09/28/2005		
MORRISON & FOERSTER LLP 1650 TYSONS BOULEVARD SUITE 300 MCLEAN, VA 22102			EXAMINER PHUNKULH, BOB A	
			ART UNIT	PAPER NUMBER
			2661	

DATE MAILED: 09/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/889,179

Applicant(s)

SCHINDLER ET AL.

Examiner

Bob A. Phunkulh

Art Unit

2661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 July 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 8-13 is/are rejected.
- 7) ☒ Claim(s) 5-7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>7/12/2001</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

The drawings are objected to because black boxes are used in Figs. (1-3) which convey no meaning. Each black box should be descriptively labeled (with either well-known symbols, words or abbreviations applicable to each device) to facilitate an understanding of the figure and how they are relate to the claims. The drawing should be more descriptively labeled as indicated by 37 CFR 1.84(g). Correction is required.

Applicant is required to submit a proposed drawing correction in response to this Office Action. However, correction of the noted defect can be deferred until the application is allowed by the Examiner.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 11-13 are rejected under 35 U.S.C. 102(b) as being anticipated by *Tuutijärvi et al.* (US 5,870,675), hereinafter *Tuutijärvi*.

Regarding claim 1, *Tuutijärvi* discloses a method for switching a communication link to another channel (handoff or handover) within or between radio system comprising:

splitting data to be transmitted into frames of identical length and interleaved (the speech are interleaved and transmitted in bursts or short packets in TDMA, where each burst in a time slot comprise of 324 bits, see col. 2 lines 54-57, col. 5 lines 24-28, and col. 5 lines 38-42); and

determining a time of handover using a decision algorithm, wherein the handover occurs after a complete frame has been transmitted (sampling the speech during a handover or before the handover in the reception if the last completely received speech burst preceding the handover, was already sampled before the handover and stored in a memory i.e. buffer, see col. 5 lines 7-23; where the speech are transmitted in bursts or other short data packet based on TDMA, see col. 5 lines 38-41).

Regarding claim 11, *Tuutijärvi* discloses a method for switching a communication link to another channel (handover) within or between mobile radio systems with packet access, comprising: determining a time of handover using a decision algorithm, wherein the handover occurs after a complete segment or a self-contained packet has been transmitted (sampling the speech during a handover or before the handover in the reception if the last completely received speech burst preceding the handover, was already sampled before the handover and stored in a memory i.e. buffer, see col. 5 lines 7-23; where the speech are transmitted in bursts or other short data packet based on TDMA, see col. 5 lines 38-41).

Art Unit: 2661

Regarding claim 12, *Tuutijärvi* a digital cellular mobile radio system having a network and mobile stations, comprising: a device to switch a communication link to another channel (handover) which uses a decision algorithm with respect to a time of handover, the handover occurring after a complete voice or data frame has been transmitted (sampling the speech during a handover or before the handover in the reception if the last completely received speech burst preceding the handover, was already sampled before the handover and stored in a memory i.e. buffer, see col. 5 lines 7-23; where the speech are transmitted in bursts or other short data packet based on TDMA, see col. 5 lines 38-41).

Regarding claim 13, *Tuutijärvi* discloses the frames are speech frames (see col. 5 lines 38-42).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Tuutijärvi* in view of *Hensley et al.* (US 5,898,730), hereinafter *Hensley*.

Regarding claims 2-4, *Tuutijärvi* fails to disclose that the handover is carried out at least partially based on the interleaving depth, the time of handover is determined by a network on the basis of the knowledge of the interleaving of the transmitted data.

Hensley, on the other hand, disclose the time of handoff is determined by measuring signal quality using multiple time slot interleave patterns in TDMA communication system (see col. 9 line 61 to col. 10 line 9).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention was made includes the teaching of *Hensley* in the system taught by *Tuutijärvi* for interleaving of transmitted data increases the probability of high quality reception –thus better handoff decision can be made.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Tuutijärvi*.

Regarding claim 10, *Tuutijärvi* discloses disclose that in the case of transmitted data in TDMA systems, the handover occurs after a complete frame has been transmitted. But, *Tuutijärvi* fails to disclose that in the case of transmitted data in CDMA systems, the handover occurs after a complete frame has been transmitted.

However, it would have been obvious to one having ordinary skill in the art at the time of invention was made to implement the *Tuutijärvi* teaching in CDMA system during handoff. Since the CDMA systems have been widely used and employed at the time of invention was made i.e. IS-95, it would have obvious to implement *Tuutijärvi* teaching in widely used and employed CDMA system.

Allowable Subject Matter

Art Unit: 2661

Claims 5, 6-7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any response to this action should be mailed to:

The following address mail to be delivered by the United States Postal Service (USPS) only:

Mail Stop _____
Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

or faxed to:

(703) 872-9306, (for formal communications intended for entry)

Or:

The following address mail to be delivered by other delivery services (Federal Express (Fed Ex), UPS, DHL, Laser, Action, Purolater, Hand Delivery, etc.) as follow:

U.S. Patent and Trademark Office
220 20th Street South
Customer Window, Mail Stop _____
Crystal Plaza Two, Lobby, Room 1B03
Arlington, VA 22202.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Bob A. Phunkulh** whose telephone number is **(571) 272-3083**. The examiner can normally be reached on Monday-Tuesday from 8:00 A.M.

Art Unit: 2661

to 5:00 P.M. (first week of the bi-week) and Monday-Friday (for second week of the bi-week).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor **Chau Nguyen**, can be reach on **(571) 272-3126**. The fax phone number for this group is **(571) 273-8300**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Bob A. Phunkulh
Primary Examiner
TC 2600
Art Unit 2661
September 26, 2005

BOB PHUNKULH
PRIMARY EXAMINER